GENERAL QUESTIONS & ANSWERS ABOUT THE NATIONAL FLOOD INSURANCE PROGRAM (NFIP) FOR MISSOURI NFIP-PARTICIPATING COMMUNITIES







The questions in the booklet were drawn from those asked by National Flood Insurance Program (NFIP) - participating communities to State Floodplain Management staff over the years. These questions are meant to assist community floodplain administrators to have a greater understanding of the NFIP to better serve their communities.

Karen McHugh, CFM 573-526-9129 Lauren Imhoff, CFM 573-526-6534 Korie Otto, CFM 573-526-9135

For the FEMA version of Answers to Questions, follow this link: cms5.revize.com/revize/
bridgewater/Answers%20to%20Questions%
20about%20the%20NFIP%20Dec%202020.pdf

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General NFIP Information

1. What is the National Flood Insurance Program (NFIP)?

The NFIP is a federal program created by Congress in association with the National Flood Insurance Act of 1968. Its purpose is to mitigate future flood losses nationwide through sound, community-enforced building and zoning ordinances and to provide access to affordable, federally backed flood insurance protection for property owners. The NFIP is designed to provide an insurance alternative to disaster assistance to meet the escalating costs of repairing damage to buildings and their contents caused by floods.

Participation in the NFIP is based on an agreement between local communities and the Federal Emergency Management Agency (FEMA). If a community agrees to adopt and enforce a floodplain management ordinance to reduce future flood risks to new construction in Special Flood Hazard Areas (SFHAs), the federal government will make flood insurance available within the community as financial protection against flood losses.

What is a Special Flood Hazard Area (SFHA)?

In support of the NFIP, FEMA identifies flood hazard areas throughout Missouri. Most areas of flood hazard are commonly identified on Flood Insurance Rate Maps (FIRMs). Areas not yet identified by a FIRM may be mapped on Flood Hazard Boundary Maps (FHBMs). Several areas of flood hazards are identified on these maps. One of these areas is the Special Flood Hazard Area (SFHA).

The SFHA is a high-risk area defined as any land inundated by a flood having a 1-percent chance of occurring in a given year (also referred to as the base flood). The high-risk-area standard constitutes a reasonable compromise between the need for building restrictions to minimize potential loss of life and property and the economic benefits to be derived from floodplain development. Development may take place within an SFHA, if development complies with local floodplain management ordinances, which must at least meet the minimum NFIP requirements.

3. How does the NFIP define a community?

In most cases, a Missouri community is an incorporated city, town, village, or unincorporated area (county) that has the authority to adopt and enforce a floodplain management ordinance. The NFIP formally defines a community as: "Any state, area or political subdivision, tribe, authorized tribal or organization or Alaska native Village; and/or any native organization with authority to adopt and enforce floodplain management ordinances for the area under its jurisdiction."

4. Is there a way to determine if a community participates in the NFIP?

A list of Missouri NFIP-participating communities can be found in the Community Status Book Report. Follow this link for a list of all Missouri NFIP-participating communities: fema.gov/cis/MO.html

General NFIP Information

5. Is there a list of local Missouri Floodplain Administrators?

The SEMA website (sema.dps.mo.gov) has an interactive map of Missouri at the bottom of the splash page. By either clicking on the county or by choosing a county on the dropdown menu, the user can find Floodplain Administrators listed by community. As an alternative, follow this link: sema.dps.mo.gov/county/



- 6. What are the benefits of belonging to the National Flood Insurance Program?
 There are many benefits in belonging to the NFIP and many reasons for communities to participate in the program, including;
- Making the community more resilient in the event of flooding;
- Protecting residents against the risk of financial uncertainty that flooding can bring if flood insurance is not available;
- Allowing residents to purchase flood insurance, thereby transferring the financial risk of flooding in exchange for an annual premium; and/or
- Receiving flood disaster assistance in a community with SFHAs, as federal agencies may not provide assistance unless the community participates in the program;
- Joining the Community Rating System (CRS) to offer supplemental discounts to their residents.

7. What is a Flood Insurance Rate Map (FIRM)?

A Flood Insurance Rate Map (FIRM) is an official map of a community on which FEMA has delineated the applicable special hazard areas and the risk premium zones.

8. How are FIRMs used?

Flood Insurance Rate Maps (FIRMs) are the official maps used as guides to indicate flood risk. Several levels of flood hazards are identified which includes high risk, moderate risk, and low risk areas. FIRMs are used by:

*Community officials use FIRMs to understand and communicate local flood risk, manage floodplains, and require new and substantially improved buildings be built to the requirements of the community's flood-plain management ordinance. This mitigates losses from future flooding events.

*Mortgage lenders use flood maps to determine a property's flood risk and decide whether to require flood insurance as a condition of a loan. Lenders require homeowners and business owners inside SFHAs to purchase flood insurance if they have a government-backed loan. This is known as the Mandatory Purchase Requirement.

- *Insurance professionals use flood maps to help residents in high-risk areas to protect their assets.
- *Developers and builders use flood maps as part of location siting and construction decisions.
- *Real Estate professionals use FIRMs to help clients make informed decisions about buying or selling a property, ensuring that there are no surprises at closing.

9. Who creates Flood Maps?

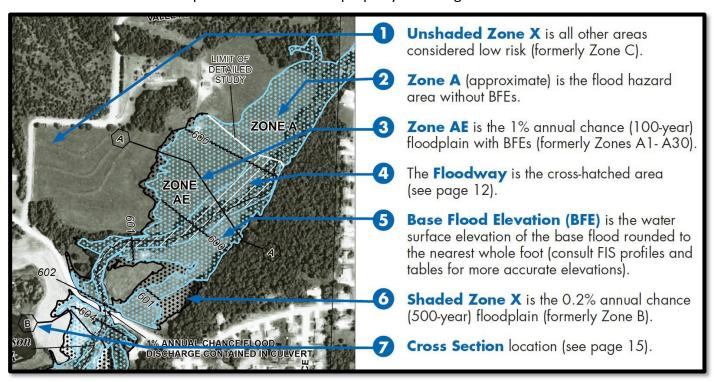
FEMA provides mapped communities with a Flood Insurance Rate Map (FIRM) of their community. FEMA supports a Cooperating Technical Partners (CTP) program with Missouri. The SEMA Floodplain Engineering and Mapping Section is a CTP partner that delivers high-quality hazard identification and risk assessment projects and outreach support, empowering communities to take action to reduce risk based on informed, multi-hazard-based data and resources. This is in support of FEMA's Risk Mapping, Assessment and Planning (Risk MAP) program. Visit the Floodplain Engineering & Mapping Section's website by following this link: storymaps.arcgis.com/stories/e871ac1f9beb4237bb5d36969544d4bd

10. Where are the FIRM panels located?

The FIRMs are generally kept with the community floodplain administrator, or planning and building permit departments where they should be available for public review. In addition, digital flood maps can be viewed on FEMA's Map Service Center (MSC) website at msc.fema.gov. Property owners can also contact FEMA's National Flood Hazard Layer (NFHL) Viewer at hazards-fema.maps.arcgis.com/apps/webappviewer/index.html. Both websites allow the viewer to make a FIRMette, which is an official copy of a portion of the Flood Insurance Rate Map.

11. How can a property owner determine whether their property is in a Special Flood Hazard Area (SFHA)?

By visiting FEMA's Map Service Center (MSC) at <u>msc.fema.gov</u> or FEMA's National Flood Hazard Layer (NFHL) Viewer at <u>hazards-fema.maps.arcgis.com/apps/webappviewer/index.html</u>, users can view the Flood Insurance Rate Map to determine if their property is in a high risk SFHA.



Above is a sample of a FIRM from the Map Modernization phase of mapping.

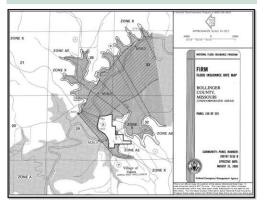
Below are samples of different types of FIRMs found in Missouri. The two on the left are community

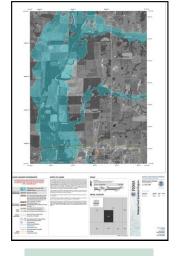
based FIRMettes and the one on the right is county-wide FIRM panel.



This is a community-based map and is not in a countywide format. In other words, the City of Lilbourn FIRM is a separate map from the New Madrid County FIRM panels.

The City of Zalma is shown on the Bollinger County maps as "Area Not Included" (ANI). Bollinger County has community-based maps. In other words, each community has its own FIRM.

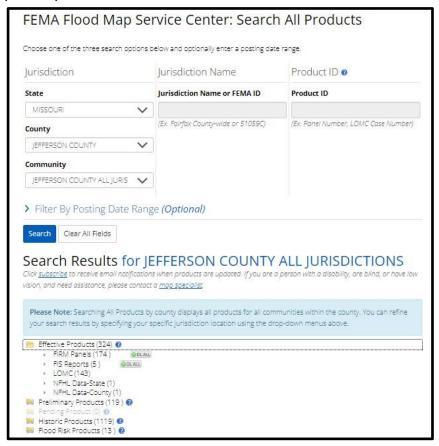




This is a Risk MAP product in countywide format.

12. Where are the current effective flood maps found?

At the FEMA Map Service Center (<u>msc.fema.gov</u>) effective flood maps are posted by community. In the dropdown menu option, select Missouri, County, and Community. By clicking "Search" the results will bring up the Effective Products, Preliminary Products, Pending Products, Historic Products and Flood Risk Products. The Effective Products file will have the FIRM Panels, FIS Report, LOMCs, NFHL Data by State and by County.



Once FIRMs go into the Letter of Final Determination phase, which is 180-days prior to becoming effective, they move from the Preliminary Products folder to the Pending Products folder. Once the FIRMs become effective, they will be placed in the Effective Products folder. The formerly effective FIRMs will be placed. in the Historic Products folder.

The current effective date of the FIRMs can be found on the FIRM panel's title box or under Effective Products FIRM Panels. The Effective date is printed next to the FIRM Panel Number.



13. What flood hazard zones are shown on the FIRM and what do they mean?

Several areas of flood hazard are commonly identified on FIRMs. One of these areas is the SFHA, which is defined as the area inundated by the flood event having a 1 percent chance of being equaled or exceeded in any given year. The 1-percent-annual-chance flood is also referred to as the "base flood". SFHAs are labeled as Zone A, Zone AO, Zone AH, Zones A1-A30, Zone AE, Zone 99, Zone AR, Zone AR/AE, Zone AR/AH, Zone AR/AO, Zone AR/A1-A30, and Zone AR/A. These SFHAs are where communities regulate new development. Moderate flood hazard areas, labeled Zone B, are also shown on the FIRM and are the areas between the limits of the base flood and the 0.2-percent-annual-chance flood. The areas of minimal flood hazard, which are the areas outside the SFHA and at a higher elevation than the 0.2 percent annual chance flood, are labeled Zone C. On new and revised maps, Zone X is used in place of Zones B and C. An unshaded Zone X holds the same meaning as the labeled Zone C. A shaded Zone X can mean any of the following: The area is in the 0.2 floodplain; it is protected by a levee; is subject to inundation by a flood event having a 1 percent chance of reaching less than a 1.0-foot depth; or it is subject to inundation by a 1-percent annual chance flood determined using future conditions.

14. What procedures are available for changing or correcting a FIRM?

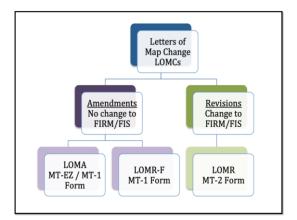
The Letter of Map Change (LOMC) process was established so that property owners, developers, and communities may update the information on FIRMs to determine the flood risk more accurately for a structure, a property, or an area. Changes to the FIRM can be made by two different types of Letters of

Map Change (LOMC). These changes are either: 1. An Amendment, or 2. A Revision to the effective FIRM.

Amendments (LOMAs or LOMR-Fs) <u>do not</u> change the FIRM, the Base Flood Elevation (BFEs), the floodway and floodway fringe boundaries, or the FIS. These two LOMCs are either a Letter of Map Amendment (LOMA) or a Letter of Map Revision—based on Fill (LOMR-F). FEMA approves (or denies) LOMAs and LOMR

-Fs by letter.

Revisions <u>do</u> change the FIRM, the Base Flood Elevation (BFEs), the floodway and floodway fringe boundaries, or the FIS. The Letter of Map Revision is either a LOMR or a Physical Map Revision (a PMR is when the entire FIRM Panel is replaced with a new FIRM panel.) FEMA has established administrative procedures for changing effective FIRMs, and FIS reports based on new or revised scientific or technical data.

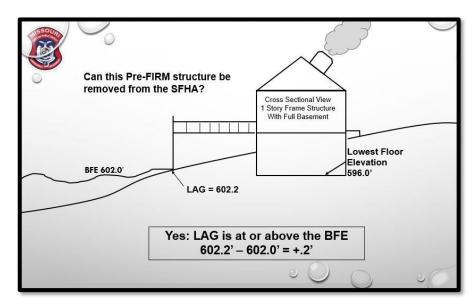


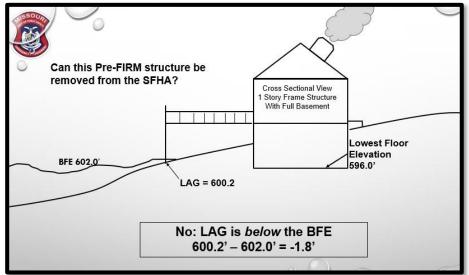
The state uses PMR's when updating a portion of a county located within a particular watershed, as part of the Cooperating Technical Partner (CTP) grant.

15. What does a Letter of Map Amendment (LOMA) do and when is it necessary to apply one? A LOMA amends the currently effective FEMA map and establishes that a specific property, a portion of a property, or a structure is not located in the SFHA. It is the same for a LOMR-F. Simply put, FEMA has "inadvertently" included the lot, a portion of the lot, or the structure itself in the SFHA. To have FEMA approve a LOMA, the Lowest Adjacent Grade (LAG) next to the structure or the Lowest Lot Elevation (LLE) must be at or above the Base Flood Elevation (BFE). When a structure is removed from the SFHA, the mandatory insurance purchase requirement no longer applies. However, a mortgage company can still require flood insurance by the contract with the buyer.

To be removed, this formula must work for a structure, a property or portion thereof:

$$LAG - BFE = 0 \text{ or } + / LLE - BFE = 0 \text{ or } +$$





Map Updates

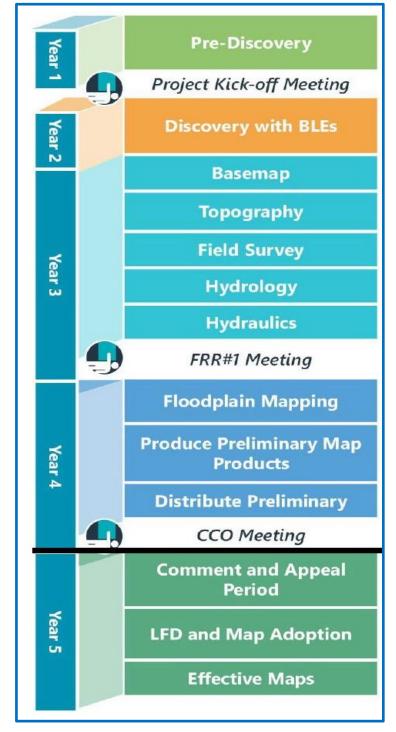
16. Why are flood maps updated?

natural forces, such as changing weather, terrain changes and wildfires, all affect how water flows and which may affect the flood zone designation of a property. New land use, community development and A variety of circumstances can prompt flood map updates at any given time. Flood hazards can change,

17. How often are flood maps updated?

whether to update or change the maps FEMA is required to review a community's flood maps every five (5) years. The agency must then decide

18. What is the time frame for FIRM production?



19. How soon after the Consultation Coordination Officer (CCO) meeting will the FIRMs and FIS become effective?

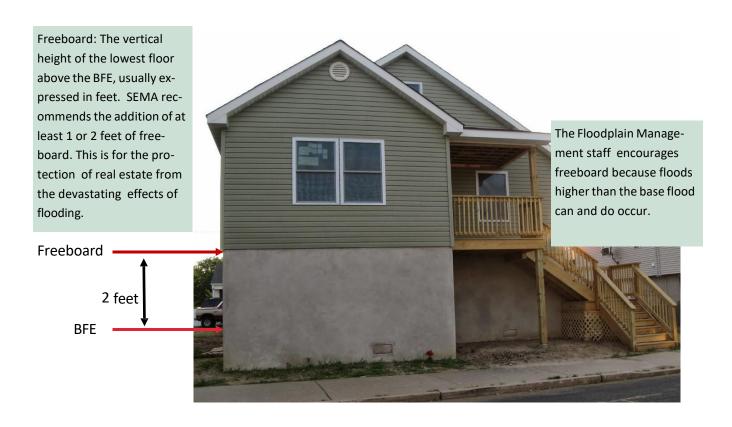
and FIS are not adopted, the community will be suspended from the NFIP ordinance. The new FIRM panels and FIS must be adopted before they become effective. If the FIRMs plain management staff will begin working with the community to update its floodplain management community. Once the Letters of Final Determination (LFDs or 180-day letters) are mailed, SEMA flood After the CCO meeting, it will be about 2 years before the new flood maps become effective in

Map Updates

20. What happens when a participating NFIP community chooses not to adopt the effective flood map and associated compliant floodplain management ordinance?
As part of a community's agreement to participate in the NFIP, it must adopt and enforce floodplain management regulations, including flood maps. If a community does not pass an ordinance that adopts updated flood maps before they become effective, that community will be suspended from the program. When a community is suspended from the NFIP, it faces the following sanctions: No property owner or renter will be able to purchase a flood insurance policy, and existing flood insurance policies will not be renewed. The State floodplain staff will aid the community to help it become compli- ant.

21. What is BFE and when is it needed?

The Base Flood Elevation (BFE) is the elevation to which flood water is estimated to rise during the base flood. Freeboard is the additional amount of height above the BFE that is used as a safety factor in determining the level at which a building's lowest floor must be elevated or flood proofed. While not used for premium pricing, both the BFE and freeboard are key factors in determining compliance with NFIP floodplain management regulations.



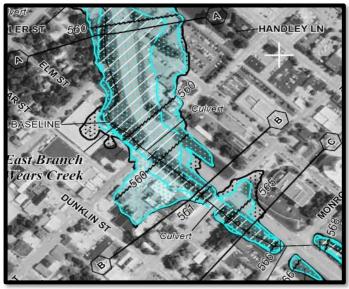
Base Flood Elevation (BFE)

22. Where can I find BFEs?

The BFE is shown on Flood Insurance Rate Maps (FIRMs) along studied streams. The AE flood zones are areas that have a 1% annual chance of flooding and are clearly defined on the FIRM. However, the BFEs shouldn't be used for regulating development because they have been rounded to the nearest whole number. Because the BFEs need to be as accurate as possible and to the tenth of a foot, the floodplain administrator must use the Flood Insurance Study's Floodway Data Table or the Flood Profiles to determine the most accurate BFE to the nearest tenth of a foot. You can download the community Flood Insurance Study from the FEMA Map Service Center at msc.fema.gov.

23. What do BFEs look like on the FIRM?

The "squiggly line" in the aerial-based FIRM to the right is known as an "isopleth." Isopleths are used to identify BFEs along a flooding source. On FEMA floodplain maps, you will see a line across the floodplain, perpendicular to the flow, with a hexagon at the end containing a letter. This marks the location where a cross section of the river was created. The Flood Insurance Study (FIS) Floodway Data Table contains a BFE that is much more accurate than the squiggly isopleth. If the subject is not located on a cross section, the FIS Profile will be used to calculate a BFE to the 10th of a foot.



24. Where can a BFE in approximate Zone A areas be found?

Because detailed analyses are not performed in Zone A areas, no depths or base flood elevations are shown on the FIRM. Fortunately, there is help in the Code of Federal Regulations (CFR) at 60.3(b)(3), stating that large developments are "greater than 50 lots or 5 acres, whichever is the lesser..." Since large developments are considered to be subdivisions by 44 CFR, BFE data must be provided to the community in Zone A areas. The community must submit the new detailed information to FEMA within 6 Months (180 days). 44 CFR 65.3.

Unfortunately, small development requirements are not regulated by 44 CFR. The community will need to decide what development standards will be required. If no BFEs have been provided, then a reasonable BFE needs to be determined.







Base Flood Elevation (BFE)

- 24. Where can a BFE in approximate Zone A areas be found? (Continued) The following are suggestions for finding a BFE in Zone A areas:
- FEMA's publication #265—Managing Floodplain Development in Approximate Zone A Areas. The simplified methods found in FEMA 265 can be used in riverine and lake areas where flow conditions are fairly uniform. There are four (4) simplified approaches for determining BFEs in Zone A study areas:
 - 1) Data extrapolation
 - 2) Contour interpolation
 - 3) Field measurement approach
 - 4) Limited detailed analysis using FEMA's Quick-2 program
- FEMA's Quick-2 program was developed for use by local communities, surveyors, and engineers. Quick-2
 requires that survey data be collected (cross-section data needs to be entered) and the stream discharge
 (hydrology or runoff) will need to be calculated.
- Contact Federal Agencies such as FEMA, the US Geological Survey (USGS), the United States Army Corps of Engineers (USACE), the National Resources Conservation Service (NRCS) or Housing and Urban Development (HUD) to see if they have conducted studies to determine BFE data at the site.
- Because of Executive Order 98-03, check with SEMA, MoDOT, DNR, OA Facilities, and DOC.
- Contact local sources such as municipalities, counties, and special entities such as Metropolitan Sewer Districts.
- If a body of water forms a boundary between two communities, the community on the opposite side may have a detailed study. The BFEs should be valid for both sides.
- If applying for a Letter of Map Amendment in Zone A, ask FEMA to calculate a BFE.
- If the FIRMs were created based upon HEC-RAS models, an Advisory Flood Height might be an option in Zone A areas. Check with State Floodplain staff.
- If a community is part of a mapping update, FEMA has a guidance document regarding using work maps, Preliminary FIRMs, and FIS information. Follow this link for FEMA policy: Guidance on the Use of Available Flood Hazard Information (FEMA Policy #104-008-2) fema.gov/sites/default/files/2020-04/
 Available Flood Hazard Information Policy 104-008-2.pdf
 . Floodplain Management Bulletin 1-98 can be found by following this link: fema.gov/sites/default/files/2020-07/fmbulletin 1 98.pdf
- FEMA does not prohibit the applicant from hiring a Missouri Professional Engineer to calculate a BFE for new development in Zone A.

Floodplain Development

25. When is a Floodplain Development Permit required?

44CFR 59.1 defines "development" as "any man-made change to improved or un-improved real-estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials."

A Floodplain Development Permit is required for all proposed construction or other development, including the placement of manufactured homes, in the areas identified as a Special Flood Hazard Area (A zones or AE zones, etc.) on the Flood Insurance Rate Maps (FIRMs) for the community.

No development is allowed except through the issuance of a Floodplain Development Permit, granted by the community's floodplain administrator.

26. What are the duties of the Floodplain Administrator?

It is incumbent on the local floodplain administrator to ensure compliance with the National Flood Insurance Program (NFIP) in accordance with 44 CFR 60.3.

27. What is a floodplain "violation"?

A "violation" means: "the failure of a structure or other development to be fully compliant with the community's floodplain management regulations." Communities that fail to enforce their floodplain ordinances may be subject to FEMA enforcement procedures.

28. What are FEMA's enforcement procedures?

If FEMA should require remedies for enforcement actions, such remedies include:

Probation

Suspension

Subrogation

Probation: Formal community notification that the community's floodplain management ordinance is not compliant with minimum NFIP standards. An additional \$50 premium will be charged on all policies sold or renewed during the time that the community is on probation. This additional charge will apply as long as the community remains on probation.

Suspension: If a community fails to work with SEMA and/or FEMA during the probationary period or if the community fails to correct the program deficiencies by the compliance deadline set during the probationary period, the community will be suspended from the NFIP, and flood insurance policies issued in the community will be nonrenewable. Homeowners with federally backed loans will still be required to meet the mandatory purchase requirements, but there will be no access to the reasonably-priced policies that were formerly available.

Subrogation: An action brought by FEMA when flood damages have occurred, flood insurance claims have been paid, and all or part of the flood damage can be attributed to acts or omissions by the community or a third party. FEMA then sues the community or third party to recover the flood insurance claims that were paid.

Flood Insurance

29. What is the NFIP definition of a Flood?

A flood is an excess of water on land that is normally dry. The official definition used by the National Flood Insurance Program states that a flood is "A general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties from:

- Overflow of inland or tidal waters;
- Unusual and rapid accumulation or runoff of surface waters from any source;
- Mudflow

30. Who may purchase a flood insurance policy?

NFIP coverage is available to all owners of eligible property (a building and/or its contents) located in a community participating in the NFIP. Owners and renters may insure their property against flood loss. Owners of buildings in the course of construction, condominium associations, and owners of residential condominium units in participating communities all may purchase flood insurance.

31. Is there a waiting period for flood insurance to become effective?

Yes. There is typically a 30-day waiting period for an NFIP policy to go into effect, unless the coverage is mandated that it be purchased as required by a federally backed lender or is related to a community flood map change. The exceptions in which the 30-day waiting period does not apply are:

*In connection with making, increasing, extending, or renewing a loan, whether conventional or otherwise, flood insurance that is initially purchased in connection with the making, increasing, extending, or renewal of a loan shall be effective at the time of loan closing, provided that the policy is applied for and the presentment of premium is made at the time of or prior to the loan closing.

*In connection with lender requirement, the 30-day waiting period does not apply when flood insurance is required as a result of a lender determination that a loan on a building in an SFHA that does not have flood insurance coverage should be protected by flood insurance. The coverage is effective upon the completion of an application and the presentment of payment of premium.

*When the initial purchase of flood insurance is in connection with the revision of updating a Flood Hazard Boundary Map (FHBM) or Flood Insurance Rate Map (FIRM): During the 13-month period beginning on the effective date of the map revision, the effective date of a new policy shall be 12:01 a.m., local time, following the day after the application date and the presentment of premium. This rule applies only where the FHBM or FIRM is revised to show the building to be in an SFHA when it had not been in an SFHA.

TYPES OF FLOOD INSURANCE COVERAGE

The NFIP's Dwelling Form offers coverage for: 1. Building Property, up to \$250,000, and 2. Personal Property (Contents), up to \$100,000. The NFIP encourages people to purchase both types of coverage. Your mortgage company can require that you purchase a certain amount of flood insurance coverage. For information about your specific limits of coverage and deductibles, refer to the Declarations Page in your flood insurance policy. It's also a good idea to review your policy with your insurance agent or company representative.

Flood Insurance

32. What is (and is not) covered by flood insurance?

Generally, physical damage to buildings or personal property directly caused by a flood is covered by flood insurance policies. For example, damages caused by a sewer backup are covered if the backup is a direct result of flooding. However, if the backup is caused by some other issue, the damages are not covered. The following charts provide general overview of items covered. It is not a comprehensive list.

General Guidance on Flood Insurance Coverage

What is insured under Building Property coverage

- . The insured building and its foundation.
- The electrical and plumbing systems.
- Central air conditioning equipment, furnaces, and water heaters.
- Refrigerators, cooking stoves, and built-in appliances such as dishwashers.
- Permanently installed carpeting over an unfinished floor.
- Permanently installed paneling, wallboard, bookcases, and cabinets.
- Window blinds.
- Detached garages (up to 10 percent of Building Property coverage). Detached buildings (other than garages) require a separate Building Property policy.
- Debris removal.

What is insured under Personal Property coverage

- Personal belongings such as clothing, furniture, and electronic equipment.
- · Curtains.
- · Portable and window air conditioners.
- Portable microwave ovens and portable dishwashers.

- Carpets not included in building coverage (see above).
- · Clothes washers and dryers.
- · Food freezers and the food in them.
- Certain valuable items such as original artwork and furs (up to \$2,500).

What is not insured by either Building Property or Personal Property coverage

- Damage caused by moisture, mildew, or mold that could have been avoided by the property owner.
- Currency, precious metals, and valuable papers such as stock certificates.
- Property and belongings outside of a building such as trees, plants, wells, septic systems, walks, decks, patios, fences, seawalls, hot tubs, and swimming pools.
- · Living expenses such as temporary housing.
- Financial losses caused by business interruption or loss of use of insured property.
- Most self-propelled vehicles such as cars, including their parts (see Section IV.5 in your policy).

Coverage type	Residential	Non-residential/business
Structure	\$250,000	\$500,000
Contents	\$100,000	\$500,000



Flood Insurance Rating

33. What Is Risk Rating 2.0?

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Risk Rating 2.0 is a new pricing methodology and representing the most significant change to the way the NFIP calculates flood insurance premiums since the program began in 1968. Premiums calculated under Risk Rating 2.0 reflect an individual property's specific flood risk, as opposed to being placed in a general risk category based on location and property type.

34. Why Did the NFIP Introduce Risk Rating 2.0?

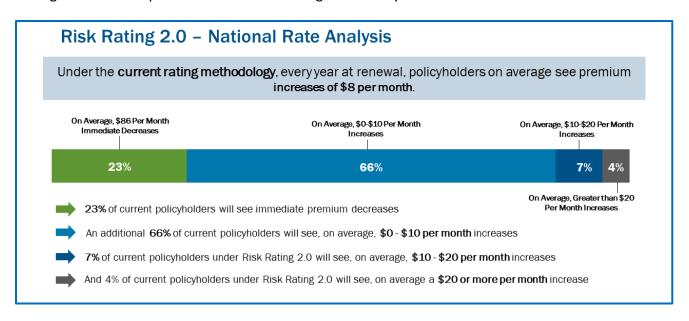
The NFIP updated its rating methodology to calculate flood insurance premiums for individual properties based on actual flood risk. This is intended to produce rates that are more reasonable, and to inform policy holders of their true flood risk.

35. How Have Flood Insurance Premiums Been Calculated Previously?

The NFIP's rating structure followed the general insurance practices in place when the NFIP was established and had not fundamentally changed since the 1970s. It used several basic characteristics to classify properties and assign rates. Structures were evaluated by location within a flood zone on a Flood Insurance Rate Map (FIRM), occupancy type, and elevation relative to the Base Flood Elevation (BFE). This rating system did not take into account the individual flood risk or the cost to rebuild and considered only two sources of flood risk: river flooding and coastal flooding.

36. How Are Premiums Calculated Under Risk Rating 2.0?

Premiums are calculated based on the specific features of an individual property, including distance from water, type of flooding, flood frequency, structure foundation type, height of the lowest floor relative to BFE, prior claims, and the structure's replacement cost value. FEMA has provided a Rate Explanation Guide and a Discount Explanation Guide to illustrate how certain rating variables affect premiums. Risk Rating 2.0 also adds pluvial flood risk—flooding from heavy rainfall.



Odds and Ends

- 37. Does building a new fence in the SFHA require a floodplain development permit?

 If a fence is located in a Special Flood Hazard Area (SFHA), it will require a Floodplain Development Permit (FPDP). Although a fence is not eligible for flood insurance, it will need to be permitted to verify that it does not exceed allowable NFIP standards. This is because fences may have a negative impact on existing flood heights, depending on how they are constructed, and could act as a "levee" or "dam" during a flood event. A fence may cause an increase in the BFE upstream, potentially causing flood damage to other structures. Typically, a standard barbed wire field fence for livestock will not affect BFEs. However, a more extensive metal or wood privacy fence surrounding a swimming pool (for example), may very well have such an impact. If the fence is located in a Regulatory Floodway, it will also need to comply with "No-Rise" certification requirements.
- 38. What is the difference between "fill" and "backfill"?

 Fill is defined as material from any source (including the subject property) that raises the ground (natural grade) to or above the Base Flood Elevation (BFE). The common construction practice of removing unsuitable existing material (topsoil) and backfilling with select structural material is not considered

fill if the practice does not alter the existing (natural grade) elevation, which is at or above the BFE.

- 39. What is considered a "Recreational Vehicle" and what are the requirements for it in the SFHA?

 A Recreational Vehicle (RV) is a vehicle that is:
 - 1. Built on a single chassis;
 - 2. I400 square feet or less when measured at the largest horizontal projection;
 - 3. Designed to be self-propelled or permanently towable by a light duty truck; and
 - 4. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

A recreational vehicle placed on a site in a Special Flood Hazard Area (SFHA) must meet the elevation and anchoring requirements for manufactured homes, unless it:

- 1. Is on the site for fewer than 180 consecutive days
- 2. Is fully licensed and ready for highway use

Ready for highway use means that it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and has no permanently attached additions.



Odds and Ends

40. Does an open pavilion in the 1% floodplain need to be elevated?

For floodplain management purposes, an open pavilion (gazebo) in the 1% chance (100-year a.k.a Special Flood Hazard Area / SFHA) floodplain is not a "structure," which signifies a walled and roofed building, a gas or liquid storage tank that is principally above ground, or a manufactured home. However, although a post-FIRM pavilion is not a structure by definition, its construction IS considered to be "development" in the SFHA. A floodplain development permit for a pavilion placed in the SFHA must be approved prior to placement. Because the pavilion is not considered to be a structure, an elevation certificate based on finished construction is not required.



41. What is allowed in an enclosure beneath an elevated floor?

Three (3) activities are allowed in an enclosure beneath an elevated floor: 1) Building access 2) Parking and 3) Storage. An enclosure of this type is allowed in an SFHA; however, it must meet certain criteria. All construction below the BFE that is susceptible to flooding must consist of flood damage-resistant building materials: "Flood damage-resistant material" is defined by the NFIP as "any building product material, component or system capable of withstanding direct and prolonged contact with floodwaters without sustaining significant damage." In addition, enclosures must be vented (permanent openings) to allow the free passage of water automatically in both directions, without human intervention. Consequently, openings such as windows, entrance doors and garage doors do not count as flood vents. The openings cannot be any higher than one-foot above grade and they must be of a certain size, i.e., one square inch of opening for every square foot of enclosure. There must also be a minimum of two openings each on different sides of the enclosed area.





Odds and Ends

- 42. Does an underground pipeline project need a floodplain development permit?

 The Floodplain Management Section staff has a lot of inquiries about underground pipelines. The community floodplain administrator often wonders about permitting this type of development. Our answer is always the same: A floodplain development permit shall be required for all proposed construction or other development in the areas identified as SFHAs on the Flood Insurance Rate Maps (FIRMs) for the community. No development shall be permitted except through the issuance of a floodplain development permit, granted by the community's floodplain administrator. Any project in a floodway must be reviewed to determine if the project will increase flood heights. An engineering analysis must be conducted before a permit can be issued.
- 43. Do federally funded projects need a local permit?

 When a Hazard Mitigation (HM) project, a Community Development Block Grant (CDBG) or Public Assistance Project takes place in the SFHA, a floodplain development permit must be written, even if it is a demolition project. Even though it is a federally funded project, a permit is NOT waived. It is still development in the SFHA. Any project in a floodway must be reviewed to determine if the project will increase flood heights. An engineering analysis must be conducted before a permit can be issued.



NFIP Acronyms

BFE – Base Flood Elevation

FEMA – Federal Emergency Management Agency

FIRM – Flood Insurance Rate Map

FIS – Flood Insurance Study

FMA – Flood Mitigation Assistance (FEMA grant program)

FPA – Floodplain Administrator

HMGP – Hazard Mitigation Grant Program (FEMA grant program)

ICC – Increased Cost of Compliance (NFIP flood insurance)

LAG – Lowest Adjacent Grade

LOMC – Letter of Map Change

NFIP – National Flood Insurance Program

PDM – Pre-Disaster Mitigation Program (FEMA grant program)

SEMA – State Emergency Management Agency

SFHA – Special Flood Hazard Area

	Brief History of the National Flood Insurance Program Summary
1968	The National Flood Insurance Act of 1968 launches the NFIP with two primary goals: 1. Reducing future flood damage, and 2. Protecting property owners.
1973	The Flood Insurance Protection Act of 1973 requires the purchase of flood insurance for some homeowners in high-risk flood zones.
1979	Executive Order 12127 officially makes the NFIP part of the Federal Emergency Management Agency (FEMA).
1989	After making landfall in South Carolina, Hurricane Hugo causes more than \$375 million in NFIP claims damage.
1993	The Midwest Floods cause more than \$270 million in NFIP claims damage.
1995	Spring flooding in Louisiana causes more than \$585 million in NFIP claims damage.
2003	The NFIP digitizes its flood mapping process, modernizing how the program represents flood risk.
2004	The Flood Insurance Reform Act of 2004 eliminates incentives to rebuild on properties that repeatedly flood, increases transparency of the claims process, and established a flood insurance training requirement for insurance professionals.
2005	Hurricane Katrina becomes the most expensive hurricane in American history. In just one year, NFIP claims damage exceeds \$17 billion.
2012	The Biggert-Waters Flood Insurance Reform Act of 2012 authorizes the national mapping program and implements rate changes to increase the NFIP's fiscal soundness. Hurricane Sandy causes more than \$8 billion in NFIP claims damage.
2014	The Homeowner Flood Insurance Affordability Act of 2014 restores grand-fathering and places limits on flood insurance rate increases, ushering in a new customer-centric era at the NFIP.
2017	Hurricanes Harvey, Irma, and Maria result in more than \$9 billion in NFIP claims damage.
2018 & Beyond	FEMA announces a future-focused strategic plan to build a national culture of preparedness and close the insurance gap.

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